

Patent Claims

1. Measuring device for process technology, to be used in measurement and/or cleaning and/or calibration installations in the area of process automation, for measuring pH-values and/or redox potentials and/or other process parameters, having a central unit (1), wherein at least one measurement module (2) is connectable with the central unit (1), characterized in that each measurement module (2) is selectable by the central unit (1) by a selection line (3) assigned thereto.
2. Measuring device as claimed in claim 1, characterized in that all measurement modules (2) are connectable with the central unit (1) over a central transmission line (4).
3. Measurement device as claimed in one of the claims 1 or 2, characterized in that each measurement module (2) has a module transmission line (5).
4. Measurement device as claimed in claim 3, characterized in that the module transmission lines (5) are connectable with the inputs (6a) of a multiplexer (6), that the output (6b) of the multiplexer (6) is connectable with the central unit (1), and that the multiplexer (6) is controllable via the selection lines (3).
5. Measurement system having a measuring device as claimed in one of the claims 1 to 4, characterized in that the measuring system has at least one measurement module.
6. Operating method for a measuring device for process technology, to be used in measurement and/or cleaning and/or calibration installations in the area of process automation, for measuring pH-values and/or redox potentials and/or other process parameters, having a central unit (1), wherein at least one measurement module (2) is connectable with the central unit (1), characterized in that the measurement module (2) is selected by the central unit (1) by means of a selection line (3) assigned to the measurement module (2).
7. Operating method as claimed in claim 6, characterized in that a multiplexer (6) is controlled by the selection lines (3) such that data transmitted over a module transmission line (5) of the selected measurement module (2) are forwarded via the multiplexer (6) to the central unit (1).
8. Operating method as claimed in one of the claims 6 or 7, characterized in that data transmitted from the central unit (1) are transmitted over a central transmission line (4) to all measurement

modules (2).

9. Operating method as claimed in one of the claims 6 to 8, characterized in that data sent from the central unit (1) are utilized only in the measurement module selected by means of selection line (3).

10. Operating method as claimed in one of the claims 6 to 9, characterized in that the measurement modules (2) are periodically selected by the central unit (1).

11. Operating method as claimed in one of the claims 6 to 10, characterized in that different measuring modules (2a, 2b, 2c) are selected for different selection times (Ta, Tb, Tc) periodically by the central unit (1).

12. Operating method as claimed in claim 11, characterized in that the selection times (Ta, Tb, Tc) are changed.

13. Operating method as claimed in one of the claims 6 to 12, characterized in that the measurement modules (2) are selected plural times within one cycle.

14. Operating method as claimed in one of the claims 6 to 13, characterized in that the measurement modules (2) are selected aperiodically by the central unit (1).